

CLAIMS

What is claimed is:

5 1. A user interface for a portable electronic device, said user interface comprising:

a) a flexible display panel, said flexible display panel forming a first layer of said user interface; and

b) a flexible touch sensor coupled with said flexible display panel,

10 said flexible touch sensor forming a second layer of said user interface, wherein said flexible touch sensor is operable to register a position where contact is made with a surface of said user interface, wherein a particular position on said user interface is translated into a particular command for controlling said portable electronic device.

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2. The user interface of Claim 1 wherein said flexible touch sensor is disposed beneath said flexible display panel, wherein said flexible display panel is disposed between said flexible touch sensor and a user.

20 3. The user interface of Claim 1 wherein said flexible display panel is disposed beneath said flexible touch sensor, wherein said flexible touch sensor is disposed between said flexible display panel and a user.

25 4. The user interface of Claim 1 wherein said flexible touch sensor comprises a fabric.

5. The user interface of Claim 4 wherein said fabric is disposed within said flexible display panel, such that said flexible touch sensor is internal to said flexible display panel.

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6. The user interface of Claim 4 wherein said fabric comprises conductive fibers, said conductive fibers adapted to conduct electrical impulses responsive to said contact with said user interface.

10 7. The user interface of Claim 1 wherein the technology employed in the fabrication of said flexible display panel is electronic paper technology.

8. The user interface of Claim 1 wherein a support shelf structure is disposed beneath said flexible touch sensor.

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9. The user interface of Claim 1 wherein said user interface further comprises:

an additional instance of said flexible touch sensor, said additional flexible touch sensor disposed beneath a support shelf, said additional flexible touch sensor coupled to said user interface; and

an additional instance of said flexible display panel, said additional flexible display coupled to said user interface, said additional flexible display panel disposed beneath said additional flexible touch sensor, whereby two sided flexible display functionality is provided to said user interface.

10. A portable computer system comprising:
a) a bus;
b) a memory device coupled with said bus;
5 c) a processor coupled with said bus;
d) a flexible display panel coupled with said bus, said flexible display panel

forming a first layer of a user interface; and

10 e) a flexible touch sensor coupled with said flexible display panel, said
flexible touch sensor forming a second layer of a user interface.

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11. The portable computer system of Claim 10 wherein said flexible
touch sensor is operable to register a position where contact is made with a
surface of said flexible display panel, wherein a particular position on said flexible
display panel is translated into a particular command for controlling said portable
15 electronic device.

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12. The portable computer system of Claim 10 wherein said flexible
touch sensor is disposed beneath said flexible display panel, wherein said
flexible display panel is disposed between said flexible touch sensor and a user.

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13. The portable computer system of Claim 10 wherein said flexible
display panel is disposed beneath said flexible touch sensor, wherein said
flexible touch sensor is disposed between said flexible display panel and a user.

14. The portable computer system of Claim 10 wherein said flexible touch sensor comprises a fabric.

15. The portable computer system of Claim 14 wherein said fabric is disposed within said flexible display panel, such that said flexible touch sensor is internal to said flexible display panel.

16. The portable computer system of Claim 14 wherein said fabric comprises conductive fibers, said conductive fibers adapted to conduct electrical impulses responsive to said contact of said flexible display panel.

17. The portable computer system of Claim 10 wherein the technology employed in the fabrication of said flexible display panel is electronic paper technology.

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18. The portable computer system of Claim 10 wherein a support shelf is disposed beneath said flexible touch sensor, said support shelf adapted to prevent puncturing of said flexible display panel and said flexible touch sensor.

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19. The portable computer system of Claim 10 wherein said portable computer system further comprises;

an additional instance of said flexible touch sensor, said additional flexible touch sensor disposed beneath said support shelf, said additional flexible touch sensor coupled to said portable computer system; and

an additional instance of said flexible display panel, said additional flexible display coupled to said portable computer system, said additional flexible display panel disposed beneath said additional flexible touch sensor, whereby two sided flexible display functionality is provided to said portable computer system..

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20. A method for providing a user interface for a portable computer system, said method comprising the steps of:

- a) displaying images and characters to a user via a flexible display panel;
- b) receiving input via a flexible touch sensor, said flexible touch sensor
10 operable to register a position where contact is made with a surface of said flexible display panel;
- c) translating said input into a particular command for controlling said portable electronic device.

15 21. The method as recited in Claim 20 wherein said flexible touch sensor is disposed beneath said flexible display panel, wherein said flexible display panel is disposed between said flexible touch sensor and a user.

22. The method as recited in Claim 20 wherein said flexible display
20 panel is disposed beneath said flexible touch sensor, wherein said flexible touch sensor is disposed between said flexible display panel and a user.

23. The method as recited in Claim 20 wherein said flexible touch
25 sensor is disposed within said flexible display panel, such that said flexible

touch sensor is internal to said flexible display panel.

24. The method as recited in Claim 20 wherein said flexible touch sensor comprises a fabric, said fabric comprising conductive fibers adapted to
5 conduct electrical impulses responsive to said contact with said user interface.

25. The method as recited in Claim 20 wherein the technology employed in the fabrication of said flexible display panel is electronic paper technology.

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